The Battle Against River Blindness

Founded after the Second World War, the Food and Agriculture Organization of the United Nations (FAO) is mandated to raise the levels of nutrition and standards of living of people in developing countries, improve the efficiency of production and distribution of food and agriculture, and better the conditions of rural populations. Since its founding in 1945, the agency has worked to prevent the many disabilities caused by malnutrition and hunger. FAO's battle against river blindness is one example of the agency's work against disabling diseases. For generations, onchocerciasis (river blindness) struck thousands of the inhabitants of the river valleys of Western Africa. The disease was the world's second greatest cause of blindness, and its presence rendered tens of thousands of hectares of fertile land practically uninhabitable. Today some of the children in West African villages still lead their blind elders around with sticks, but they are growing up without the threat of river blindness.

The FAO is one of four sponsoring agencies (along with the World Health Organization, the United Nations Development Programme and the World Bank) of the Onchocerciasis Control Programme (OCP), which has rid large areas of Western Africa of this ancient scourge.

Before the campaign was launched in 1972, some 2.5 million people contracted onchocerciasis. The more than 8 million children born since then are all free from the infection. Over 15 million hectares of previously affected territory are now under control. In 100,000 cases, blindness has been prevented and over 18 million people have been protected. The Control Programme has been able to virtually wipe out the risk of infection in many areas, primarily through a highly organized larvicide campaign initiated in 1974.

Onchocerciasis is caused by a parasitic worm (*Onchocerca volvulus*), which is transmitted to man by multiple bites from infected blackflies. The worm releases embryos into the skin, which provoke itching, lesions and sometimes a loss of pigmentation. These embryos also invade the eye, causing serious damage that eventually leads to blindness.

When OCP started in the early 1970s, there was no drug available to combat the disease, so control efforts focused on eliminating the blackfly. Larvicide spraying by helicopter began in 1974 in Burkina Faso, and the following year was extended to the northern part of Cote d'Ivoire, the eastern fringe of Mali and north-western Ghana.

During Phase II in 1976, operations were launched in the White and Red Volta basins of Burkina Faso and in northern Ghana. By 1977, the larvicide campaign reached eastern Mali as far as the Niger River and the north-western part of Cote d'Ivoire. Operations also were started in the endemic areas of Niger, northern Togo and northern Benin. Four more countries—Guinea, Guinea-Bissau, Senegal and Sierra Leone—eventually joined the Programme.

While the larvicide campaign was effective, there was still no remedy for the disease itself. In 1975, ivermectin, an anti-worm drug initially used with livestock, was discovered to be effective for humans as well. The drug destroys the irritating microworms and protects infected people for up to a year. Although ivermectin was not able to reverse blindness, its use against onchocerciasis reduced the suffering of thousands of victims.

The Programme's long-term aim is to turn the previously oncho-affected areas into habitable areas where people can safely live and work. Already, thousands of small farmers have returned to the fertile

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river valleys of West Africa in pursuit of new opportunities offered as a result of the Control Programme. Over 500,000 people, representing 62,000 households, are expected to benefit from resettlement activities.

FAO and its development partners are contributing to this phase of OCP with a host of initiatives for resettled areas. Plans are being launched to increase and improve food production, transportation and marketing. Villages in the oncho-affected areas are to benefit from better roads, schools and health services. There are also projects related to women's participation, small-scale food processing, livestock production, crop storage and crop diversification. FAO, together with the United Nations Development Programme, has assisted Governments in planning area development programmes and in many cases has undertaken development activities.

"OCP has set in motion a regional support network that can flourish beyond the duration of the Programme. We have proved that boundless achievements are made possible when a true spirit of cooperation exists," said Dr. Samba, Director of the Programme.

Benin has included development of the oncho control zones in its national development plans. Projects are planned to improve rural development, fruit and food-crop production and livestock rearing.

In the Kan Valley in Cote d'Ivoire pineapples, avocados and vegetables will be grown for local consumption and export. Livestock rearing is planned for the valleys that were previously uninhabited because of onchocerciasis.

The onchocerciasis regions under control in Ghana are included in a national five-year development plan. Efforts have focused on irrigated rice-, tomato- and cotton-growing. Over 220 small dams have been built and several medium-sized ones are under construction.

Burkina Faso is continuing an ambitious development plan under the Volta Valley Development Authority. Priority is being given to strengthening infrastructure, reforestation and implementation of measures to ensure self-sufficiency in food production of small farmers.

Following agreements with UNDP and FAO in 1978, the Malian Government established a data bank and a planning unit for the onchocerciasis zone. Surveys were made of three target areas for resettlement and general development, and plans were drawn up for the installation of basic facilities (boreholes, pumps, mills) and for the introduction of renewable forms of energy.

The other countries within the control zone—Guinea, Guinea-Bissau, Niger, Senegal, Sierra Leone and Togo—also have plans for rural development and the reintegration of their migrant populations. From the beginning, natural resource surveys were conducted and socio-economic data gathered to prepare the groundwork for resettlement and development activities.

"The road is long, but OCP has already measured more progress than we ever dreamed possible," Dr. Samba said. "Now the real work of resettlement and development can begin in earnest."

During the UN Decade of Disabled Persons, FAO has continued with its global programmes to prevent disabled persons from hunger and malnutrition. FAO provides advice and assistance to Governments and programmes for increasing food production and food availability. The Organization is working to improve the health and nutrition of people around the world, through nutrition planning, nutrition intervention and food quality control programmes.

In addition, FAO operates a large information programme to increase public awareness in regard to food, nutrition and agriculture.

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